

## **Air pollution in Ulaanbaatar:**

### **International Donor Community of Mongolia: Response to open letter from newspaper editors**

We have read your thoughtful letter to the international donor community on the issue of air pollution in Ulaanbaatar. As fellow residents we share your concerns. In response to these concerns, we would like to inform you on a few activities in which the international donor community is already engaged to try to reduce air pollution. In addition, we are considering new initiatives, in which the donor community would work with the government and other stakeholders to help alleviate this problem.

As you are aware, the Parliament, The Municipality of Ulaanbaatar, and Ministry of Nature and Environment have formed working groups to develop an Action Plan to reduce air pollution. This has been submitted to the Standing Committee on Nature, Environment, Food and Agriculture for parliamentary endorsement. The donor community stands ready to support implementation of the plan as requested by the government. However, actions from all of us – residents, government, and donors – at home, in the office, in policy making and in projects will be needed to make a difference in the quality of the air we breathe in every day.

With continuing in-migration, rapid urbanization, increasing use of cars and other vehicles, constrained geography limits of the city, and greater demands for cooking and heating, the pollution levels have risen and will continue to do so unless stronger actions, some easy, others difficult to implement, are taken. As such, there is no magic bullet or a single project or a single policy change which can get rid of the pollution. What is needed is a series of actions on several fronts.

The first step in this effort has to be prevention, because experience has shown that pollution prevention is less expensive than inaction in the longer run: health costs and premature deaths pose significant burdens to society. As an example, WHO believes that reducing levels of one particular type of pollutant (known as PM10) could reduce deaths in polluted cities by as much as 15% every year. To support prevention of air pollution, the WHO in the last three years has worked with the Government to: survey the harmful effects of air pollution and use the findings as a basis for making environmental health policy; build capacity to assess and manage health risks by organizing training for researchers and hygiene inspectors on environmental health impact assessment; provide a portable laboratory for indoor air quality; train specialists abroad in laboratory analysis; and provide technical expertise in setting and implementation of the national standards on air quality. The national guidelines propose progressive interim targets and provide milestones in achieving better air quality.

Other preventive measures include reducing emissions from coal stoves in *Ger* areas which is likely to have the greatest impact on local air quality and health, at least in the short term. Several actions are needed to reduce these emissions: switching to the use of briquettes and other cleaner fuels, improved insulation, better city planning, and more widespread adoption of improved stoves. Reducing *Ger* stove emissions will also require actions by policy makers – the government is considering incentives that encourage the use of the cleaner-burning stoves and cleaner fuels, followed by prohibitions on the burning of raw coal. It would, however, be up to the citizens themselves to actually buy and use those cleaner burning stoves and fuel.

In this regard, the World Bank has for five years been supporting the improved urban stoves program during which time a great deal has been learned about the constraints to making them as efficient and as attractive an investment as possible. The Asian Development Bank is following up on this initiative, by continuing a subsidy to reduce the market price of improved stoves. Also the Government of Japan is willing to provide a generous series of concessionary loans to small and medium enterprises for environmentally-oriented businesses such as briquette factories and fuel-cleaning installations.

However, addressing the problem of *Ger* coal stoves is not sufficient. Medium term improvements will need to be made through dealing with inefficiencies in the generation, transmission and distribution of power, improving the efficiency of district heating and hot water boiler systems, as well as greatly improving the energy efficiency of buildings. Donors have extended considerable assistance for rehabilitation, modernization and expansion of the district heating system in Ulaanbaatar; the most recent project to be completed includes installation of efficient hot water pumps and over 400 heat substations in the city. The donors are ready to help with similar improvements in the future, but such efforts will fail without demonstrated Government commitment to making sometimes unpopular decisions to reform the energy sector - and without the willingness on the part of the citizens to acknowledge that environmental improvements will cost money. The Ulaanbaatar Municipality and the central Government are preparing a new infrastructure project with potential support from the World Bank which aims to reduce energy waste in heating apartments.

Approaching air pollution from the perspective of reducing energy consumption, insulation has not received the attention it deserves. UNDP's Super-Insulated Buildings Project has shown that insulation can reduce coal use by up to 60%, and a planned project would support energy efficiency measures such as improving national standards and building codes for the formal construction sector as well as providing assistance for *Ger* insulation through a financial facility. The government of Germany has also been active in supporting the construction of energy efficient houses. These and related efforts are most likely to bring rapid and measurable improvements in air quality improvement - if widely adopted.

To reduce traffic generated pollution, ADB's recently approved Urban Development Sector Project includes a significant component for the improvement of roads in Ulaanbaatar. The project will update the Ulaanbaatar road master plan, develop a traffic management and control strategy, and upgrade selected road sections that hinder smooth traffic flow.

Additional research to pinpoint pollutants and their levels will receive a much needed boost with delivery of four state-of-the-art air quality monitoring units which have been donated by the Government of Germany. Among the pollutants to be measured are particulates which are damaging to human health which are not currently measured in Mongolia. More units are required to cover the whole city and the government is in dialogue with other donors to obtain them. The monitoring will not only help to identify the sites which need immediate attention but also to map the city's pollution patterns on a day-to-day basis. Data like these will allow the sources of air pollution to be discovered, and the success (or otherwise) of abatement initiatives to be determined and adjustments made to actions as necessary. The World Bank has developed a framework for integrated air quality management, using computer models, which allows cities like Ulaanbaatar to target measures for addressing air pollution problems.

The World Bank has supported the formation of an Air Quality Management Cell led by NAMHEM (the National Agency for Meteorology, Hydrology and Environmental Monitoring) with stakeholders from the Ulaanbaatar Municipality, Ministry of Fuel and Energy, Ministry of Health, Ministry of Transport, Roads and Tourism. The primary objective of this cell is to allow air quality to be managed in a more holistic and comprehensive manner. The Government of the Netherlands will develop the knowledge base which will help build a shared vision among all the partners in Ulaanbaatar, and UNDP is currently supporting the calculation of the costs of necessary actions to control air pollution, as part of the government's National Development Strategy.

Crucial to all these efforts in the long term is good city planning. A sector working group led by the Government and Germany and Japan will look into actions needed to improve the urban environment. The Government of Japan has committed to assist the Ulaanbaatar Municipality in the review of the draft Ulaanbaatar Masterplan, one element of which will be to explore means of reducing the sources and the effects of air pollution.

In our own small way the international financial institutions along with the UN system, will try to reduce the CO<sub>2</sub> emissions by putting in place a shuttle bus program to reduce the number of cars that staff drive to work.

Despite all this, the above measures are in sum, only one set of actions and initiatives to address the problem. And so we hope that you will use your newspapers to make your fellow citizens aware of the complexities of the problem, of the need for everyone to act together - even in small ways - to improve the situation, and of the likelihood of increased effort and costs for

citizens, in the short term, to make sure that the air we all breathe in Ulaanbaatar is cleaner.

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